

Shine a light on stains

We test the liquids to see how good they are at removing 15 different stains. All of our stains fall into one of three groups: fatty stains such as make-up and motor oil; bleachable stains such as tea and coffee as well as food stains such as cocoa or egg yolk. We use the maker's recommended dosage for a normally soiled load to wash 3kgs of white cotton dishcloths. We check stain removal power by shining a light on the stains after washing. The more light reflected, the more of the stain the liquid detergent can remove. We repeat the test three times.

Contacts

ACDO 01204 600500
www.acdo.co.uk
Ariel 0800 015 7412; www.ariel.co.uk
Asda 0845 300 1111; www.asda.com
Bio-D 01482 229950
www.biodegradeable.biz
Bold 0800 015 7412
www.bold2inf.co.uk
Daz 0800 015 7412
www.dazwhite.co.uk
Ecover 0845 130 2230
www.ecover.com
Fairy 0800 015 7412
www.softeningyourworld.com
Persil 0800 776644; www.persil.com
Sainsbury's 0800 636262
www.sainsburys.com
Somerfield 0117 935 6669
www.somerfield.co.uk
Surcare 0800 096 1641
www.surcare.co.uk
Surf 0800 444200; www.surf.co.uk
Tesco 0800 505555; www.tesco.com
Waitrose 0800 188884; www.waitrose.com

OUR RESEARCH

When selecting liquid detergents to test, we consult manufacturers, market intelligence reports and industry experts, then check availability on the high street and online. Tested brands include top-sellers from the most popular brands and some lesser-known brands. We don't include brands whose formulas are due to change in the near future.

Liquid assets

Can liquid detergents match the cleaning power of powders?

We have tested 25 liquid laundry detergents following our June 2007 report on washing powder. We found that on fatty stains, such as make-up and motor oil, more than half of the liquids on test outdid the powders.

Unfortunately, the liquids didn't do so well in the rest of the tests. They don't contain bleaching agents, so they found bleachable stains such as tea, coffee and wine particularly tough to shift.

Bios clean better than non-bios

because they contain enzymes, which are very effective at breaking down food stains on fabrics. However, non-bios are good for people with sensitive skin as they don't contain enzymes. Liquid detergents are easily rinsed away, leaving little residue behind to irritate skin, unlike powders, which can coat fabrics.

You can buy all the detergents we tested with measuring cups, so you can use the exact amount of detergent, which helps save your

wash, your skin and your cash.

Using too much is bad for cleaning, as excessive bubbles cushion fabric, preventing wash agitation (fabrics rubbing together). Excess foam will also block washing-machine drainpipes, which results in a poorly rinsed wash. Detergent that hasn't been completely rinsed off fabrics can cause skin irritation.

So putting 'a little extra in for luck' may cost you more in rinsing water or give you a nasty rash.

How to buy liquids

Think about price, size and even postage and packing

Cheaper brands such as Tesco Value may cost just 72p a litre, but one litre is only enough for eight washes against 20 washes from one bottle of Ariel.

Concentrated liquids such as Persil or Surf Small & Mighty lacked the power to conquer our stains and aren't

the cheapest option.

We bought Acdo and Bio-D online, so postage and packing is extra. This can be reduced by buying in bulk. Green liquid Bio-D can be bought in 25-litre canisters. This will last you almost twice as long as 25 litres of Ecover.



Powders vs liquids

Liquids help colours but powders have their place

There are good reasons to buy liquids but powders are better at removing stains (see 'Powder to the people', *Which?*, June 2007, p58).

However liquids, none of which contain bleach, are good for dark or colourful clothes, as colour won't fade. Fatty stains show up more on coloured clothes than on whites, and this is where liquids stand out most, as they remove more fatty stains than

powders. Liquids are also kinder to washing machine heating elements as they prevent limescale building up.

There is a place for both liquids and powders in your washing routine (for more on new powders, see 'Washing the environmental way', p10). For example, powders containing bleach should be used with maintenance washes (see 'How to maintain your machine', p59).

USING THE TABLE

The more stars the better.

Specification

Price The average high-street price over a two-month period. Online prices are in *italics*.

Price per wash Using the smallest pack size available, this is based on the minimum washes that the pack contains.

Test performance

Fatty stain removal Efficiency at removing fatty stains (make-up, lipstick, butter, hamburger grease and motor oil), which are the toughest stains to shift.

Food stain removal Efficiency at removing vegetable and protein stains (bolognese, chocolate ice cream, egg yolk, carrot purée and cocoa).

Total stain removal Efficiency at removing fatty stains as well as vegetable and protein stains.

Colour fading How little colour fades after 25 washes.

Score

Ignores price and is based on:

Stain removal	60%
Colour fading	40%

**1 BIO**

67% Ariel Biological

16p a wash

Ariel is the best bio on test, way ahead of its nearest rival, Asda. It outperformed other bios by removing more of the following six stains: coffee, bolognese sauce, chocolate ice cream, fatty hamburger grease, tomato ketchup and carrot purée. Look out for a bottle with a wash ball as the cup can't be used for measuring. Widely available in all supermarkets.

Bottle sizes 1.5/2.5 litres Washes per pack 20/33

**14 NON-BIO**

59% Ariel Sensitive

16p a wash

If you want cleaning power without the enzymes which could irritate your skin, this is the non-bio for you. It did very well in this test, removing the most butter, lipstick, bolognese, cocoa, chocolate ice cream and carrot purée. Fatty stains were no challenge and all were removed without fading colourful fabrics. Available in all major supermarkets except Somerfield and Tesco.

Bottle sizes 1.5/2.5 litres Washes per pack 20/33



BRAND	SPECIFICATION			WHICH? TEST PERFORMANCE				SCORE %
	PACK SIZES (litres)	PRICE (£)	PRICE PER WASH (p)	FATTY STAIN REMOVAL	FOOD STAIN REMOVAL	TOTAL STAIN REMOVAL	COLOUR FADING	
BIO								
1 ARIEL Biological	1.5/2.5	3.28/4.00	16	★★★★	★★★★★	★★★★★	★★★★★	67
2 ASDA Bio Washing Liquid	1.5	2.48	12	★★★★	★★★★	★★★★	★★★★★	57
3 SAINSBURY'S Basics Biological Liquid	1	0.72	9	★★★★	★★	★★★★	★★★★★	56
4 WAITROSE Concentrated Ultima	1.5	2.59	13	★★★★	★★★★	★★★★	★★★★★	56
5 BOLD 2-in-1	1.5	2.95	15	★★	★★★★	★★★★	★★★★★	55
6 SOMERFIELD Bio	1.5	2.68	13	★★★★	★★★★	★★★★	★★★★	55
7 ASDA Smart Price Bio Liquid Wash	2	1.44	9	★★	★★	★★	★★★★★	54
8 PERSIL Small & Mighty	0.73	3.68	18	★★	★★★★	★★★★	★★★★★	52
9 TESCO Value Biological Laundry Liquid	1	0.72	9	★★★★	★★	★★	★★★★★	52
10 DAZ	1.5	2.77	14	★	★★★★★	★★	★★★★★	49
11 SURF Small & Mighty	0.73	2.89	14	★	★★★★	★★	★★★★★	46
12 TESCO Super Concentrated Bio	0.73	2.79	14	★	★★★★	★★	★★★★★	46
13 SAINSBURY'S Bio Perform Liquid Gel	1.5	2.48	12	★	★★★★	★★	★★★★★	43
NON-BIO								
14 ARIEL Sensitive	1.5/2.5	3.28/4.00	16	★★★★★	★★★★	★★★★	★★★★★	59
15 ASDA Non-bio Washing Liquid	1.5	2.48	12	★★★★	★★	★★★★	★★★★★	54
16 FAIRY Non Bio	1.5/2.5	3.35/5.49	17	★★★★	★★★★	★★★★	★★★★★	53
17 WAITROSE Concentrated Ultima	1.5	2.59	13	★★★★	★★	★★	★★★★★	51
18 PERSIL Small & Mighty	0.73	3.69	18	★★	★★	★★	★★★★★	49
19 ECOVER Ecological Non-bio Laundry Liquid	1.5 ^a	4.39	26	★	★★	★	★★★★★	46
20 TESCO Super-concentrated Non Bio	0.73	2.79	14	★★	★★	★★	★★★★★	43
21 BIO-D Laundry Liquid	1/5/25	3.75/16.50/69.50 ^b	18	★	★	★	★★★★★	41
22 SOMERFIELD Non Bio	1.5	2.68	13	★	★★	★	★★★★★	38
23 SAINSBURY'S Non-bio Perform Liquid Gel	1.5	2.48	12	★	★★	★	★★★★★	37
24 SURCARE Sensitive	1	2.65	24	★	★★	★	★★★★★	36
25 ACDO Miracle Liquid	0.5	1.30 ^c	19	★	★	★	★★★★★	35

^a 5l and 25l available online only ^b P&P from £4.30 ^c P&P from £2.50